



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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AUG 30 2007

Chief, Rules Review and Directives Branch
Division of Administrative Services
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

Dear Sir or Madam:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 31 (draft SEIS) regarding James A. FitzPatrick Nuclear Power Plant (JAFNPP) (CEQ #20070247). According to the draft SEIS, the current operating license for JAFNPP will expire in October 2014. The proposed Federal action would renew the current operating licenses for an additional 20 years.

This draft SEIS was prepared as a plant-specific supplement to the Nuclear Regulatory Commission's (NRC) 1996 Final Generic Environmental Impact Statement for the License Renewal of Nuclear Plants (GEIS), which was prepared to streamline the license renewal process on the premise that in general, the environmental impacts from re-licensing nuclear power plants are similar. That GEIS proposed that NRC develop facility-specific SEIS documents for individual plants as the facilities apply for license renewal. EPA provided comments on the GEIS during the development process in 1992 and 1996.

The JAFNPP is located on approximately 702 acres on the south shore of Lake Ontario, in Oswego County, New York. JAFNPP is a single-cycle, forced-circulation boiling-water reactor that produces steam for direct use in the steam turbine. The rated thermal output of the unit is 2536 megawatts-thermal corresponding to an electrical output of approximately 881 megawatts-electric. The facility is refueled on a 24-month cycle. Plant cooling is provided by a once-through circulating water system that draws from and discharges to Lake Ontario.

Based on the review of the JAFNPP draft SEIS, the EPA has rated the project and document "Environmental Concerns - insufficient information" (EC-2). We have concerns with the impacts due to entrainment and impingement of fish and shellfish, and an inadequate cumulative impacts analysis. Also, we recommend that the final SEIS address opportunities for pollution prevention and waste recycling.

Entrainment:

EPA is concerned that the information being used to determine the potential impact of the use of cooling water on the entrainment of organisms is dated and that the determination does not take into account the changes in fisheries stocks that have been seen in Lake Ontario. The ichthyoplankton entrainment estimates are made by extrapolating data from a 1997 Study performed near the Nine Mile Point Nuclear Station. Not only is that data ten years old, but, as stated in the draft SEIS, the fisheries species in Lake Ontario have changed rapidly over the past 10 years with decreasing numbers of alewife (*Alosa pseudoharengus*) and increasing numbers of invasive aquatics, such as quagga mussels (*Dreissena bugensis*). Also, the draft SEIS points out that studies done in the 1980s and 1990s have shown a decline in zooplankton and algal abundance, and implies an increased competition between smaller fish and other invertebrates for zooplankton prey. Clearly, the existing condition of the Lake is different from what it was in the 1990s.

The NRC concludes that the potential impacts of the use of once-through cooling water to fish and shellfish are small. This conclusion may be premature, particularly when there is a current study that will provide new information concerning the significance of the impact. The draft SEIS states that on January 24, 2006, JAFNPP applied for a renewal of its New York SPDES permit, and as part of that program, JAFNPP recently conducted a one-year entrainment sampling program, which concluded in March 2007. While NRC states that it reviewed preliminary data from this study, the entire dataset should be analyzed and presented within the final SEIS. The Council on Environmental Quality's NEPA regulations state that relevant environmental documents should be made part of the record. A small delay in releasing the final SEIS should not interfere with the relicensing date of 2014, and will allow the public and interested parties to examine the new data.

Radiological Impacts:

In Section 2.2.7 of the draft SEIS, NRC states that for 2005, whole-body dose estimates were calculated based on actual liquid and aqueous effluent release data and conservative models to simulate the transport mechanisms. This text should be expanded to provide perspective on whether the maximum whole-body doses calculated for 2005 are typical of what would be expected considering the last 5-10 years of liquid and gaseous effluent data available for JAFNPP.

Groundwater:

The final SEIS should discuss any actions the licensee may have taken to follow-up on the NRC information notices informing operators of nuclear power and research and test reactors of the potential for onsite groundwater contamination due to undetected leakage of radioactive water.

Environmental Impacts of Postulated Accidents:

Section 5 of the draft SEIS should include a discussion on how the impacts of intentional destructive acts (e.g., terrorism) aimed at the plant, as well as the dry cask storage facilities, were addressed in the assessment of the impacts from postulated accidents. The requirement to consider such acts as part of the NEPA analysis is based on the Ninth District Court's decision in San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission (June 2006).

Cumulative Impacts:

While NRC staff has determined that the potential impacts of entrainment and impingement by JAFNPP are small as those numbers comprise a small percent of the lakewide population, it did not evaluate the cumulative impact to those resources on the entire lake. The cumulative impacts analysis does not evaluate the use of Lake Ontario water as cooling for other nuclear or coal electric generating facilities in Canada, such as the Pickering Nuclear Generating Station or Darlington Nuclear Generating Station, and the cumulative impacts to aquatic species.

The draft SEIS was also silent on the issue and options for pollution prevention (P2). The final SEIS should discuss the internal and external processes and the waste streams that would be candidates for pollution prevention technologies. Some P2 opportunities can be as simple as specific landscaping and reduction of herbicides within the facility grounds, to reduction of sanitary or hazardous (non-radioactive) wastes. We encourage consultation with the U.S. Department of Energy's P2 office to obtain recommendations that would fit with the processes at JAFNPP.

We appreciate the opportunity to comment on the draft SEIS. Upon completion of the final SEIS please send three copies to this office. My staff is available to discuss these comments and provide assistance in responding to these issues. **Please feel free** to contact Lingard Knutson, at (212) 637-3747 if you have any questions.

Sincerely yours,



John Filippelli, Chief
Strategic Planning and Multi-Media Programs Branch

Attachment (Rating Sheet) `

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1-Adequate

EPA believes the draft EIS adequately sets forth the environmental **impact(s)** of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of **clarifying** language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to **fully** assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional **information**, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially **significant** environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially **significant** environmental impacts. EPA believes that the identified additional information, data, analysis, or discussions are of such a magnitude that they should have full public review at a **draft** stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA **and/or** Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised **draft** EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."